Exemption 5 [redacted]

Purpose

On April 30, 2015 the New York State Department of Environmental Conservation (NYSDEC) requested the United States Environmental Protection Agency (EPA) to evaluate the property at 7105 Lockport Road in Niagara, New York for a removal action. An investigation conducted by the NYSDEC indicated elevated concentrations of pesticide, particularly hexachlorocyclohexane (HCH) compounds, located in ground surface and subsurface soils. Such conditions present a public health risk to those working on the property and neighboring residential communities, in additional to the obvious environmental threats due to contamination. Clean-up of the property is projected to be in the millions of dollars due to the costs associated with the proper removal and disposal of HCH contaminated media. Exemption 5; 7(e) [redacted]

Site Description

The Niagara Town Garage Site (Site) is located at 7105 Lockport Road in the Town of Niagara, Niagara County, New York. The active facility houses a Highway Garage Building, approximately 21,675ft^2 in size, primarily used for storing and maintaining large equipment and vehicles for highway, police, water and sewer authorities. A dirt fenced-in lot, measuring approximately 1 acre, is located at the rear of the property behind the Highway Garage Building. This area is used for the storage of materials including derelict vehicles, active vehicles, stone, excess pipe, and general mechanical debris. To the east of the garage is a storage silo for road salt and a yard that holds sand, dirt and stone for highway purposes. To the west is the Niagara Town Hall and water tower, beyond which is a residential property. The Site is bounded to the south by an active railroad line, beyond which a public playground and residential properties are located. Surface drainage is to the south where it runs alongside the elevated railroad track.

The Site is bisected by two parcels, both owned by the City of Niagara. Parcel 131.19-1-17 is the western parcel and most associated with the 7105 Lockport Road Niagara Town Garage Site. This parcel also houses the Niagara Town Hall and the water tower. A majority of the contaminated material was found on this parcel. The western parcel, 131.20-1-1, holds the silo, dirt storage area and part of the garage structure that is used by the police department and water and sewer authorities.

Background

In 2013, work to install a catch and drainage basin was conducted in the rear lot of parcel 131.9-1-17 in efforts to provide an area for highway trucks to be washed and cleaned. Workers noticed an unusual odor and reported it to supervisors. As time passed, additional activities were conducted in the rear lot of the Site including construction of concrete cells, organization of the lot and increased truck traffic. As these activities continued, the odor became more prominent and noticeable. In August 2013 the Niagara Town Highway Superintendent had five test pits dug in the rear of the Site. Four of the test pits encountered fill material approximately 12 inches below grade surface (bgs). The fill was approximately 1-2 feet in depth and “contained slag, bricks and other construction-related debris, intermixed with a white filter-cake like material with a significant chemical odor observed.” The engineering firm obtained by the Town collected one sample of the fill material which indicated elevated levels of HCH

constituents, including gamma-hexachlorocyclohexane, or lindane. As a result, on October 7, 2013 the engineering firm reported activities to the NYSDEC.

In September 2014, a contractor for the NYSDEC generated a Site Characterization Work Plan outlining activities to be conducted at the Site, including walkovers, radiation surveys, geophysical surveys, characterization and delineation of surface and subsurface soils, installation and collection of groundwater samples. In July 2014 the contractor conducted Site and topographical surveys. In addition, a gamma radiation survey conducted during the same time detected gamma radiation at background concentrations throughout the Site, indicating no elevated readings. In August 2014 a subcontractor to the NYSDEC completed a geophysical survey of the Site to determine the presence of any buried metallic objects. Although various areas showed buried metal in the yard, none of the signatures indicated a presence of buried tanks or drums.

Subsurface investigations were conducted on three separate occasions, based on media collection. In September 2014, 35 soil borings were advanced to depths up to 10 feet bgs. Observations of buried waste was noted, including the presence of a white filter-cake material. A total of 17 soil samples (including one duplicate and one material sample) were collected based on observations of the soil borings. Results showed the presence of lindane at concentrations ranging from 0.740 mg/kg to 6,100 mg/kg. Additionally, other isomers such as α-HCH, β-HCH and δ-HCH, were found in concentrations as high as 4,700 mg/kg, 340 mg/kg and 2,000 mg/kg respectively. Samples collected from the surface interval (0-6") showed concentrations of lindane at 300 mg/kg, α-HCH at 1,300 mg/kg and β-HCH at 120 mg/kg. The highest concentrations were found in the 12-24" interval.

Based on observations from the September 2014 soil boring and sampling event, in November 2014 five monitoring wells were installed, ranging in depth from 4.5 to 11 feet. Additionally, 13 interval soil samples were collected from location GMW-5 prior to well installation. The concentrations of lindane ranged from non-detect to 62 mg/kg. Concentrations of α-HCH and β-HCH ranged from 0.7 mg/kg to 600 mg/kg and non-detect to 30 mg/kg respectively. All results for δ-HCH were at non-detectable levels.

Groundwater samples were collected in March 2015 following stabilization of the monitoring wells. One sample was collected within the screen interval of each well. Groundwater samples indicated the presence of lindane in two of the locations at concentrations of 0.51 and 1,000 µg/L. Additionally, concentrations of α-HCH were found as high as 590 µg/L, as well as 72 µg/L for β-HCH and 800 µg/L for δ-HCH.

An additional soil boring and sampling event was conducted in March 2015 at one location. A total of 12 interval samples were collected from half-foot intervals starting at 4' bgs extending to 9.5' bgs. While no levels of lindane or δ-HCH were detected, α-HCH was found at concentrations as high as 1.1 mg/kg and as high as 0.91 mg/kg for β-HCH.

PRP Search

Niagara County New York has a historical legacy of industrialization and chemical manufacturing, manipulation and refinement. HCH-based pesticide was a material produced by several companies in the area, namely Hooker Chemicals and Plastics Corporation (now Occidental Chemical Corporation) and Olin Corporation. Several dump sites throughout the County have been extensively sampled, cleaned-up, capped and are currently under maintenance and monitoring programs. Oversight of most of these sites fall under the authority of the NYSDEC and/or local authorities. Sites, such as the 102nd Street Landfill, Gibson Site, and Love Canal are known locations where dumping of process cake have led to

HCH contamination of the soil and groundwater. Responsibility for cleaning up these projects have been undertaken by Occidental Chemical Corp and/or Olin Corporation. Both have accepted responsibility for placing hexachlorocyclohexane compounds in low lying areas to be used as fill material.

Admitting to placing drums of benzene hexachloride and filling areas with HCH process cake, Olin Corporation was held responsible for the investigation, stabilization and maintenance of the Gibson Site, located in the Town of Niagara. Occidental Chemical Corp. was found liable in placing HCH compounds in Love Canal as well as a portion of the 102nd Street Landfill Site. Both companies have been performing cleanup of these Site as well as Operations, Maintenance and Monitoring (OMM) per agreements with government entities.

The NYSDEC submitted information requests to three parties; Occidental Chemical Corp., Olin Corporation and the Town of Niagara. No parties claim responsibility or knowledge of the lindane and associated HCH isomers found at the Niagara Town Garage Site.

Strategy

Exemption 5; 7(e)

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Exemption 5; 7(e)

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Objective

Niagara County has an unfortunate collection of legacy industrial dump sites located throughout the area. Companies, such as Olin Corporation and the Hooker Chemical and Plastics Corporation had opportunities in the early and mid-20th century to dump, place or transfer contaminated materials to lands throughout Niagara County. Some of these areas are well known and have set precedence for modern environmental regulations. Based on the historical practices of these firms, there is a possibility the contaminated material found at the Niagara Town Garage Site originated from one of these companies. Exemption 5; 7(e)

Exemption 5; 7(e) [redacted]